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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,917	08/29/2005	Markus Giggenbacher	62909(51994)	2949

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EXAMINER	
PATEL, VISHAL A	
ART UNIT	PAPER NUMBER
3676	

MAIL DATE	DELIVERY MODE
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/524,917	GIGGENBACHER ET AL.	
	Examiner	Art Unit	
	Vishal Patel	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 7-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 7-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/12/07 and 9/24/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/12/07 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kinoshita (JP 08054067A).

Kinoshita discloses a divided mechanical face seal having a first and second cooperating seal rings (e.g. portion of 15 that contacts 17 and 17), a divided driver device (e.g. 20 and 22) configured for mounting to a rotary component and for the transmission of a torque from the rotary component to the first seal ring (e.g. 17), which is adapted to be fastened to the divided driver device, the driver divided device being divided in at least a single radial plane for forming sections in the form of segments of a circle (e.g. figures 4-6), the sections being adapted to be clamped into the shape of a ring, and the divided driver device being axially sub-divided into a radially divided retaining ring (e.g. 20) for retaining the first seal ring (e.g. 17) and a radially

divided mounting ring (e.g. 22) for mounting to the rotary component, the mounting ring and retaining ring being adapted to be coupled together for rotation in common (abstract), wherein the retaining ring includes sections in the form of segments of a circle (e.g. figure 5) adapted to be placed together in a sealed manner into the shape of a ring having an inner radial dimension (e.g. inner diameter of 20) that is greater than the nominal outer radial dimension of the rotary component (figures) and further including peripherally aligned end faces abutting each other (e.g. faces at 62), and the mounting ring including at least a pair of sections (figure 6) in the form of segments of a circle, the sections being adapted to be combined into a ring having an inner radial dimension that is smaller than that of the retaining ring (e.g. figures 1 and 6 show this) and smaller than the nominal outer radial dimension of the rotary component (e.g. this would be the case since the shaft having 12 is larger) for clamping engagement of the mounting ring with the rotary component, a seal housing (e.g. 15) divided in at least one radial plane into sections in the form of segments of a circle adapted to be clamped together and mutually sealed against each other, wherein the second seal ring (e.g. ring portion that contacts 17) is adapted to be fastened to the housing for cooperating with the first seal ring of the driver device. The peripherally aligned end faces of the retaining ring are in essentially planer metal to metal contact (e.g. figure 5 at 62) and comprise a surface finish for mutually sealing them (when metal is split the split surface has a surface finish). The retaining ring and the mounting ring are coupled together with play in at least the circumferential direction (figures 4-6). The seal ring is loosely seated on the retaining ring (figure 1 and 4). The seal housing include peripherally aligned end faces, which are configured to be in essentially planar metal to metal contact (e.g. figure 1 at 48) and the end faces having a surface finish for sealing engagement to one another. The retaining ring and the

mounting ring are coupled together with play (this is the case since a resilient member 26 is placed between 20 and 22 which provides play between 20 and 22). Furthermore the retaining ring and the mounting ring are coupled together with play since they are segmented, the diameter of the rings are larger than outer diameter of a potential shaft and elastomer members placed between the potential shaft and the rings. Furthermore each and every structural limitation of the claims is taught by Kinoshita.

The mechanical face seal of Kinoshita is capable of being used in a relatively rotating environment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita.

Kinoshita discloses the claimed invention except that the end faces of the retaining ring have a roughness of 0.5 micrometer. Discovering an optimum range of a result effective variable involves only routine skill in the art. In re Kulling, 895 F.2d 1147, 14 USPQ 2d 1056. Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the end face of Kinoshita to have roughness of 0.5 micro-meter to provide mechanical expedience and would be a matter of design choice.

Response to Arguments

6. Applicant's arguments filed 10/12/07 have been fully considered but they are not persuasive.

Applicants' argument that Kinosita fails to disclose the retaining and the mounting ring coupled together with play is not persuasive because the retaining ring and the mounting ring are coupled together with play (this is the case since a resilient member 26 is placed between 20 and 22 which provides play between 20 and 22).

Applicants' argument that Kinosita discloses that the mounting ring is bolted by means of bolts to the retaining ring is correct but the play is provided by resilient member 26.

7. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., compare drive pin 22 loosely seated in recess 23 and seal ring for claim 1) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants' argument about play is not persuasive because the play is due to the fact that the members are larger than the shaft which is taught by Kinosita and furthermore to prevent axial play one uses a bolt means as applicant uses 24 to prevent axial play.

Applicants' argument to seal gap is not persuasive because the seal when assembled does not have a gap but the faces of the seal ring contact as shown in applicants' figures 1-2 and also as disclosed by Kinosita.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
November 8, 2007



Vishal Patel
Patent Examiner
Tech. Center 3600